VALUE CHAIN DEVELOPMENT AS AN INSTRUMENT TO PROMOTE THE RE-STARTING OF THE STRUCTURAL TRANSFORMATION PROCESS IN COLOMBIA

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ABSTRACT

With a GDP per Capita (PPP) of around $5,800 USD (World Bank Data Base, 2016), Colombia is classified as a middle-income country. In recent years, its economy has grown at a rate higher than the average for Latin America and more than 6 million people rose out of poverty between 2002 and 2014 (World Bank, 2016). However, inequality – especially between urban and rural areas and populations – continues to be an issue, and it must be addressed to continue on the development path. To promote sustained progress and the improvement of livelihoods in rural communities, approximately 30% of the country's total population, Colombia must strive to develop its agricultural sector. This project examines the current situation of the country's rural and agricultural sector, seeks to understand what actions were taken to promote a structural transformation and to what extent they succeeded. In addition, it analyzes two specific value chains and their contribution to rural Colombia's development, and concludes by identifying the limitations and challenges that value chains face and will continue to encounter to effectively turn Colombia's agriculture and rural areas into engines for growth and development.

BIOGRAPHICAL SKETCH

Juliana Bayona graduated with a Business Administration major and a Development Studies minor from Universidad de los Andes, in Bogotá, Colombia in 2015. The same year, she joined Compartamos con Colombia, where she led and developed capacity building consulting projects for other social sector organizations. In 2017 she moved on to Fundación Mario Santo Domingo, where she led the project for the transformation of the microfinance area and coordinated the organization-wide strategic planning.

Juliana is a candidate for a Professional Master's degree in International Development, with a concentration in development policy, at Cornell University. Her professional interests focus on the benefits of value-chain strengthening as a means to foster rural socioeconomic development and address the widening inequality gaps between rural and urban areas in Colombia.

Para mis papás, que me inculcaron el amor por el campo colombiano,

y para Jean Paul, que comparte ese amor y me acompaña a cumplir todos mis sueños.

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I. Introduction

Colombia is considered a middle-income country. With a GDP per capita estimated at $5,800 in 2016, and an economy that in recent years has grown at a rate higher than the average for Latin America, the country was able to lift 6 million people out of poverty between 2002 and 2014 (World Bank, 2016). However, inequality – especially between urban and rural areas and populations – continues to be an issue, and it must be addressed to move forward on the development path. Addressing the multiple inequalities is of increased importance in the face of the current context: promoting rural-urban equality is a pre-condition to the building of lasting peace.

Structural transformations are one of the defining characteristics of development processes, both the cause and effect of economic growth. They are characterized by the re-allocation of economic activities across the broad sectors of agriculture, manufacturing and services (Timmer, 2007; Herrendorf, et al., 2014). Presumably, Colombia underwent part of the structural transformation process which led to deep economic changes in the 1980s and 1990s (Ocampo et al., 2007). Nonetheless, from the 90s onward, the growth rate of the agricultural sector has been significantly lower than that for other Latin American economies and the sector's productivity has been stagnant, remaining at levels similar to those achieved during the golden age of Colombian agriculture, the period between the Second World War and 1980. (Misión para la Transformación del Campo, 2015).

Despite that over 30% of the Colombian population live in rural areas and the territory, which accounts for over 90% of the country's area, economic and social development strategies have been focused primarily on urban areas and dwellers (Colombia Rural – Razones para la Esperanza, 2011). Furthermore, the Colombian countryside was the main setting of over 50 years of armed conflict (Misión para la Transformación del Campo, 2015). Consequently, rural Colombia's situation is in many cases precarious as compared to urban centers of the country. A careful revision of literature can provide an understanding

of rural Colombia's situation in terms of its socio-economic development and can help identify the factors that limited the structural transformation process and its effective contribution to overall economic growth.

Understanding the current situation and the limitations of agricultural development in the past is valuable in proposing new strategies to turn Colombia's rural areas and its agricultural sector into engines for growth and socio-economic development. One of such strategies can be the promotion of food value-chain strengthening and development. The United Nation's Industrial Development Organization (UNIDO) suggests that agro-industry value chains can significantly increase the rate and scope of growth and poverty reduction (UNIDO, 2009). Additionally, the Food and Agricultural Organization (FAO) explains that value chains function as engines of growth creating added value on several components – salaries for workers, return on assets to entrepreneurs and asset owners, tax revenues to the governments and a net impact on the environment (Neven, 2014). The value added throughout the chain sets in motion three growth loops, the investment, multiplier and progress loops, that relate to economic, social and environmental sustainability (Neven, 2014)

This project examines the current situation of the country's rural and agricultural sector, seeks to understand what actions were taken to promote a structural transformation and to what extent they succeeded. It suggests that value chains for development may be a powerful tool and pathway for the private sector to lead the way into a second structural transformation process. Finally, it also examines to what extent two specific value chains have contributed to socio-economic development in the country. It is divided into five sections, the first reviews literature on the structural transformation process and its role in growth and development; the second focuses on understanding the evolution of Colombia's agricultural sector throughout the 20th century; and the third presents a characterization of rural population and the agricultural sector today as well as three possible explanations to the limited effects that the structural transformation and agriculture in general have had in the development process. The fourth section briefly explains the value chains for development theory and documents the value chain cases of Wok, an important

restaurant chain in Bogotá, and CasaLuker, a chocolate manufacturer, and their contributions to Colombia's rural development. The final section presents the concluding remarks and ideas for further research.

II. Structural Transformation and Agriculture as a Strategy for Development

Development looks to foster economic growth, but above all, to encourage poverty reduction. Considering the majority of poor people around the world depend on agriculture for their livelihood, the role of agriculture in the development process is crucial (Christiaensen et al., 2011). Furthermore, history has shown that it is impossible to sustain a rapid transition out of poverty without raising the productivity of the agricultural sector (Timmer, 2007). In light of the above, the structural transformation acquires a very important role in the development process.

A *successful* structural transformation often involves a shift of resources away from agriculture and into other sectors of the economy (Samaniego and Sun, 2016), and according to Timmer (2007), it is "the defining characteristic of the development process, both cause and effect of economic growth". In a structural transformation process, agriculture, through higher productivity, provides the food, labor and savings that spur the process of urbanization and industrialization (Timmer and Akkus, 2008). Paradoxically, despite the higher productivity achieved, at the end of the process the relative importance of agriculture to the economy is lower because the manufacturing and services sectors generally grow at a faster pace.

Structural transformations are characterized by four consecutive and interrelated processes: a declining share of agriculture in GDP and employment; rural to urban migration that promotes the process of urbanization; the development of the industrial and services sectors of the economy; and a demographic transition from high to low birth and death rates (Timmer and Akkus, 2008). The final outcome of the successful structural transformation processes "is an economy and society where agriculture as an economic activity has no distinguishing characteristics from other sectors, at least in terms of the productivity of labor and capital, or the location of poverty" (Timmer, 2007).

The idea of agriculture as an engine for economic growth became widely accepted beginning in the late 1960s (Byerlee et al., 2005) and is explained through three different approaches. First, it is recognized that the agricultural sector can quickly modernize through the adoption of science-based technologies, thus making a large contribution to productivity and overall growth. As initially proposed by Lewis (1954), the increased productivity in agriculture generates a labor surplus that can move into the non-agricultural sector and promote its growth (Lewis, 1954; Timmer and Akkus, 2008). Second, strong growth linkages and multiplier effects of agricultural growth to the non-agricultural sectors exist; agriculture has direct forward linkages to agricultural processing and backward ones to input supply industries. Furthermore, it has been proved empirically, that in the early stages of development, a large share of manufacturing is agriculturally related. Third, and probably most importantly, rising incomes of rural households during the early stages of the structural transformation and development processes are vital in providing demand for domestically produced goods and services, and the lower food prices achieved through increased agricultural productivity are key in keeping urban wages low and thus stimulating industrialization (Byerlee et al., 2005).

Despite the clear empirical evidence and the historic role of agriculture in development, interest from both donors and academics in the sector decreased starting in the mid 1980s (Timmer, 2007). With the declaration of the Millennium Development Goals this interest was renewed, as agriculture relates to many of the goals, and is central to achieving at least three of them – reducing poverty and hunger, fostering gender equality and accomplishing a sustainable management of the environment (Byerlee et al., 2009). Today the potential contribution of agriculture to the development process and the importance of promoting structural transformations needs to be evaluated in close consideration of countries' socioeconomic contexts. A rising academic current argues that prioritizing agriculture as a strategy for development will not be successful as the classic intersectoral linkages no longer apply with the same force because of the increasing interconnectedness of markets (Christiaensen et al., 2011). Others, through the careful analyses of the structural transformations of the past maintain that even the most successful of these processes can lead to problems for the poor. Among the most worrisome is the fact that there is a strong historical pattern

of worsening income distribution between urban and rural economies, and that the actions usually put in place to correct this tend to further hurt the poor both in the short- and long-run (Timmer, 2007). Nonetheless, different approaches, such as the value chains for development one, are being pushed forward in an effort to address the challenges faced by the rural poor and bridge the rural-urban gaps that have arisen. Value chains for development are touted as a way to integrate smallholder agricultural producers into higher value markets and promote access to important benefits and services (United Nations Industrial Development Organization (UNIDO), 2011).

III. The Structural Transformation Process in Colombia

III.I Evolution of the Colombian Agricultural Sector and the Economy

Colombia, like other Latin American economies has undergone part of the structural transformation process discussed above: agriculture as a share of GDP followed a decreasing trend, and so has the percent of labor employed in the agricultural sector. However, despite these accomplishments, productivity in the sector is not remarkable, and what is more, it has been virtually stagnant since the 1980s (Misión para la Transformación del Campo, 2015). This section briefly reviews the evolution of the agricultural sector in the 20th century and the policies that were put in place to develop it. Additionally, it presents evidence to support the hypothesis that the structural transformation in Colombia has been incomplete and that agriculture has only partially functioned as an engine for growth.

Colombia entered the 20th century with an economy based on serfdom-like relationships, and with households as the main production units (Kalmanovitz and López, 2007). The coffee sector expansion that took place in the first two decades of the century was the single most important event and had profound implications for agricultural and overall economic development in subsequent years. This expansion of coffee plantations took place not on the traditional *haciendas*, but through smallholder farm production and led to the emergence of different social and productive norms (Bejarano, 2007). With the expansion, coffee became the driver of growth for the domestic market, as it not only increased the incomes, investment and spending capacities of the smallholder farmers, but also created a network of urban consumers and supported the development of transportation infrastructure – mainly railroads – that had profound effects on the consolidation and diversification of the market (Bejarano, 2007).

The expansion of the domestic market sparked by the increase in coffee production, combined with the industrial development the country was undergoing, and the urbanization process, led to an increase in the area under agricultural cultivation between 1900 and 1925 (Bejarano, 2007). However, this expansion of the sector was not accompanied by marked modernization: improvements in the techniques and

technologies became apparent only as of the 1930s and were adopted mostly in the bigger and wealthier *haciendas*. By the 1930s, total agricultural production was not sufficient to satisfy internal demand and despite significant efforts, to date the country remains dependent on imports to meet domestic demand for food (Kalmanovitz and López, 2007).

The period between the end of the Second World War and 1980 came to be known as agriculture's golden age. The 50s saw the beginning of modernization for agriculture, an increase in the area under cultivation for other commercial crops and an improvement in productivity, which resulted in an increase of over 150% in agricultural production for crops different than coffee. This modernization, however, resulted in a dual agricultural sector, with a structure in which, parallel to a modern and technically sophisticated agriculture, a traditional one, with low productivity survived (Ocampo et al., 2007).

The changes experienced by the Colombian agricultural sector must be understood in the context of the policies that were put in place to foster economic development in the country. Since early in the 20th century, agriculture's potential in Colombia's development has been recognized and the state has devised different policies to support it. Common, and central, to the different policies is protection and barriers on trade, and other state interventions that failed to create the conditions necessary for the sector's sustainable development (Ocampo et al., 2007). Kalmanovitz and López (2007) synthesize the evolution of agrarian policy and its effects: Despite positive incentives given to many farmers, the country has been unable to undergo a successful agrarian reform and land redistribution policy and overtime, the state has sponsored continuity of non-competitive products. This, combined with an erratic and slow adoption of innovations and technology, has led to moderate sectorial growth and a situation in which the limited resources have been allocated inefficiently and the country's comparative advantages have not been seized (Kalmanovitz and López, 2007).

Notwithstanding the very modest accomplishments of the Colombian agricultural sector, the country achieved major structural transformation benchmarks during this period. Throughout the 20th century, the share of agriculture in GDP decreased steadily, and conversely, the share of industry followed an overall increasing trend, as is evidenced by Figure 1. As would also be predicted by the structural transformation literature, Figure 2 shows that the percentage of rural population decreased, and although some researchers suggest that this could be due to the high incidence of violence in rural areas (Urrutia and Robinson, 2007), a study conducted in the 60s concluded that migration to urban centers was mostly due to the availability of better economic opportunities in the cities (Urrutia and Robinson, 2007). Also, in line with the structural transformation process, Colombia has seen an important decrease in its birth and death rates, the downward trends are depicted in Figures 3 and 4.

Figure 1 Evolution of Agriculture and Industry as a Percent of GDP

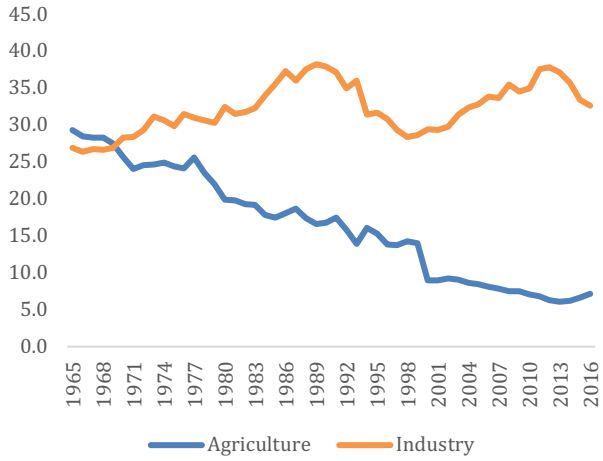
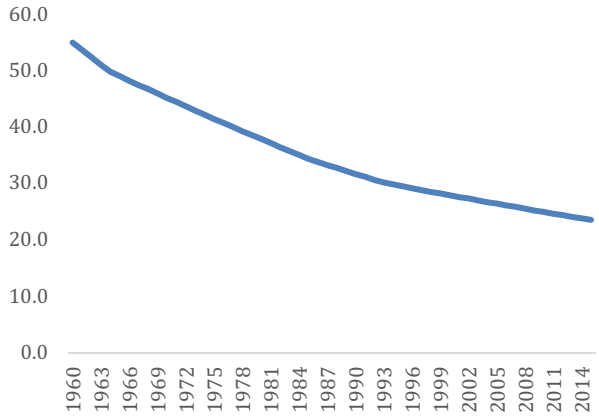


Figure 2 Rural Population as Percent of Total Population



Source: World Bank Data Base, 2017

Furthermore, the current composition of the economy and the distribution of labor across economic sectors would indicate that the country's structural transformation is nearly complete. Byerlee, et al. (2009) suggest that high income countries that have undergone structural transformation processes usually have a share of agriculture in GDP which is less than 5%. With 6.6% of the GDP attributable to agriculture in 2015, Colombia is very close to achieving the standard. Additionally, less than 18% of the country's active

labor force is currently employed in the agricultural sector (World Bank Data Base, 2017; CIA World Fact Book Data, 2017).

Figure 3 Evolution of Birth Rates per 1,000

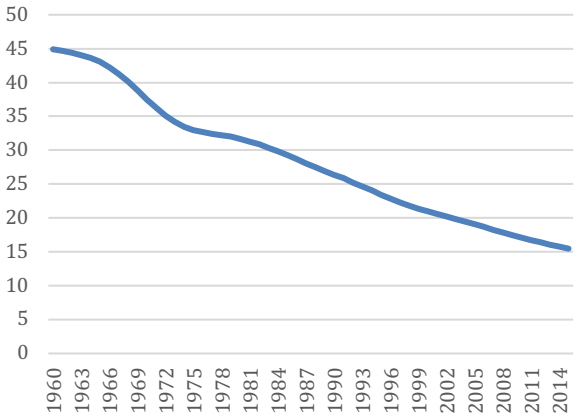
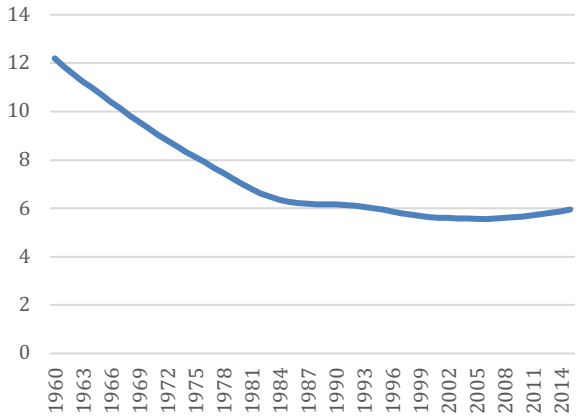


Figure 4 Evolution of Death Rate per 1,000



Source: World Bank Data Base

If Colombia had indeed followed the path of a successful structural transformation, the sector's productivity should be at the same level, or very close to the productivity of the industry and service sectors, and rural population should enjoy similar living standards to urban dwellers. Neither is the case in Colombia. Table 1 shows the evolution of sector productivity for Colombia, and although the productivity in agriculture did increase between the 1960s and the turn of the century, it continues to be significantly lower than that of the industry and services sector. Figures 5, 6 and 7 illustrate the rural-urban development gap. When accounted for by income, the incidence of both poverty and extreme poverty were systematically higher for rural populations between 2002 and 2013, and when considering other key indicators of poverty, such as access to clean water and sanitation and education and literacy rates, poor rural households were worse off than their urban counterparts.

Table 1 Evolution of Economic Sector Productivity

	1960			1980			1990		
	Agriculture	Industry	Services	Agriculture	Industry	Services	Agriculture	Industry	Services
Colombia	63	127	147	63	110	124	68	146	196

Average productivity of an economy = 100

Source: Urrutia and Robinson, 2007

Figure 5 Evolution of Income Poverty (%)

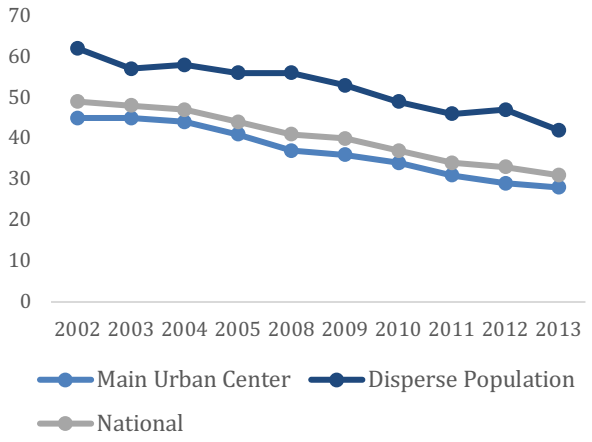
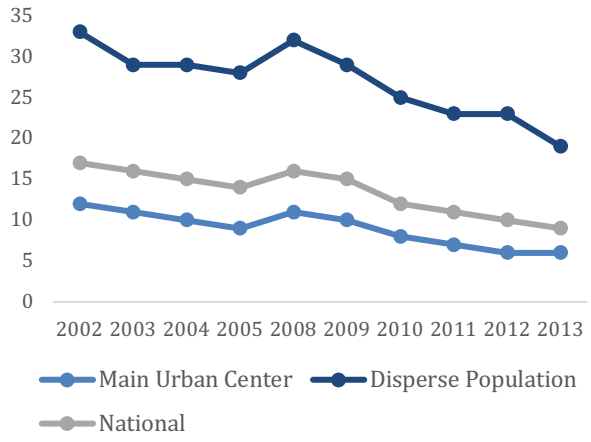
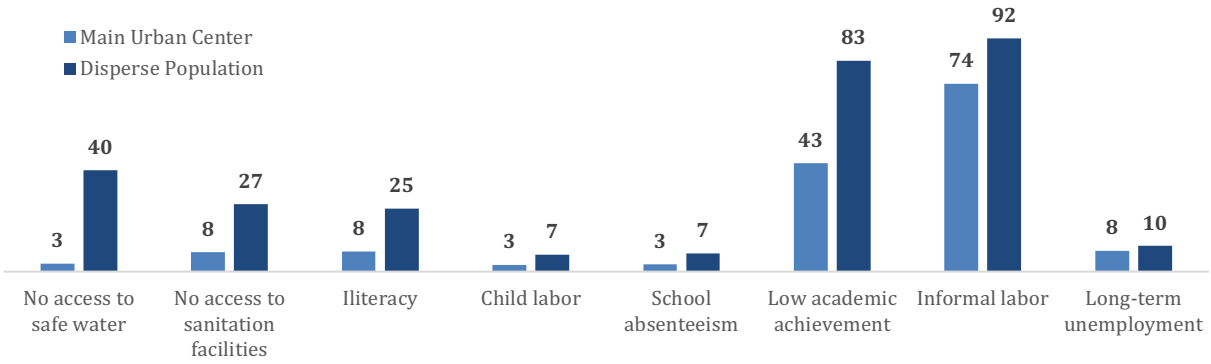


Figure 6 Evolution of Extreme Income Poverty (%)



Source: Misión para la Transformación del Campo, 2015

Figure 7 Rural-Urban Gap for Poverty Indicators (%)



Source: Misión para la Transformación del Campo, 2015

III.II Characterization of Rural Colombia

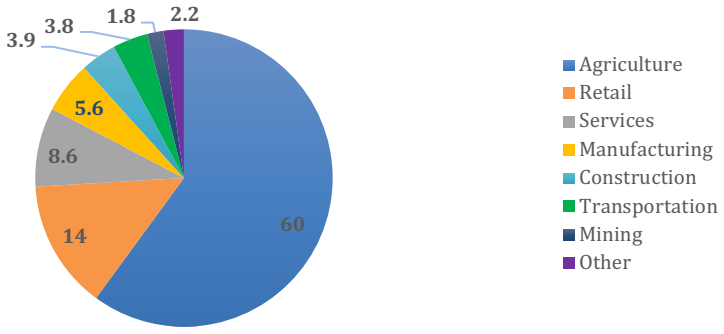
Colombia spans over one million one hundred hectares in the northernmost tip of South America and has a population of 49,364,592 (DANE, 2017). According to a recent study conducted by the United Nations Development Program, over 90% of the country's total area is rural and close to 30% of the population inhabits these rural areas (PNUD, 2011). However, it is not accurate to talk about Colombian rural areas as a whole, as it is a highly heterogeneous space and its inhabitants are also varied people – some indigenous, some of African descent, and others considered white who migrated out in the later years of the colonial period (Misión para la Transformación del Campo, 2015). In this sense, rural Colombia encompasses fairly developed areas, closely articulated with big and intermediate cities, and other extremely poor areas, generally located in the most remote regions of the country. It is comprised of areas where large farms are predominant and of other regions where smallholder farmers have been traditionally settled. Within the first, modern agribusinesses have been developed, but these co-exist with farms that rely on traditional agriculture and continue to practice extensive cattle grazing (Misión para la Transformación del Campo, 2015). The remaining of this section presents a brief characterization of the rural population's social and economic inclusion and the current state of the agricultural and livestock sector.

Approximately 11 million Colombians live in rural areas. They live in households which on average have 3.6 members and close to 26% of these rural households have women as the primary income-earners (Ministerio de Agricultura y Desarrollo Rural, 2017). Despite the fact that between 2002 and 2014 over 6 million Colombians rose out of poverty, poverty is still a wide-spread phenomenon in rural areas: extreme monetary poverty was more than three times higher in rural than in urban areas and 2.5 times higher if one considers the multidimensional poverty indicator. Furthermore, Colombian rural areas are practically devoid of a middle class. According to a survey conducted in 2013, only 7.3% of the rural population could be considered to fall in this category, which possibly indicates that poverty has decreased in rural areas due mainly to migration, than to an actual overcoming of the situation of vulnerability (Misión para la Transformación del Campo, 2015). The Misión para la Transformación del Campo (2015) concluded that 89% of rural people are either poor or highly likely of falling into poverty.

Rural dwellers' opportunities for social inclusion remain limited. Illiteracy rates came in at 17.4% for rural population in 2014, and while Colombians over the age of 15 living in cities have on average 9 years or more of compulsory education, those living in rural areas only have mandatory primary education which amounts to a little over 5 years on average (Misión para la Transformación del Campo, 2015). In terms of access to health care, the rate of coverage is high and very similar for rural and urban areas, but effective access to high quality health services is a lot lower for rural population, particularly because of the distances that must be covered and costs that must be incurred to reach the health facilities (Lamprea and García, 2016). Regarding pensions and retirement plans, less than 14% of the rural population is affiliated to the system and this is particularly worrisome because it is an ageing demographic group (Ministerio de Agricultura y Desarrollo Rural, 2017).

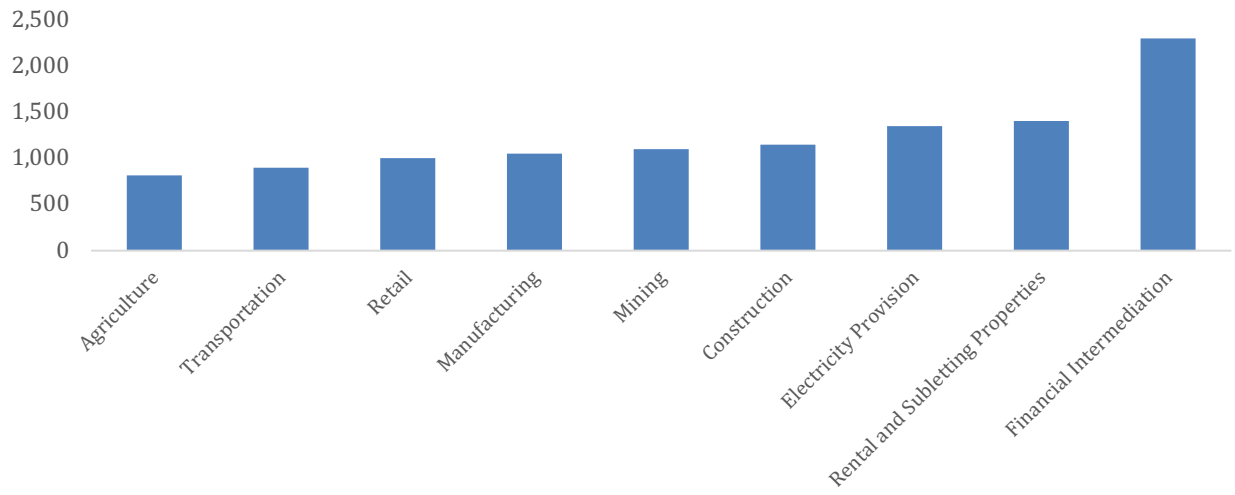
Unemployment is one of the very few indicators in which rural areas fared better than urban ones: in 2016, the unemployment rate for rural areas was 5.3% and 10.3% for cities and urban centers. Many academics argue that unemployment rates are low in rural areas because many households still rely on family labor to run the farms (Misión para la Transformación del Campo, 2015). In accordance with this, it was found that rural households rely the most on agriculture to generate their income, as evidenced by Figure 8. However, Figure 9 shows that within the typical productive activities that rural households perform, agriculture is the one that generates the least revenue (Ministerio de Agricultura y Desarrollo Rural, 2017).

Figure 8 Distribution of Employment by Sector in 2016 (%)



Source: Ministerio de Agricultura y Desarrollo Rural, 2017

Figure 9 Average Rural Household Income by Sector in 2016 (thousands of pesos)



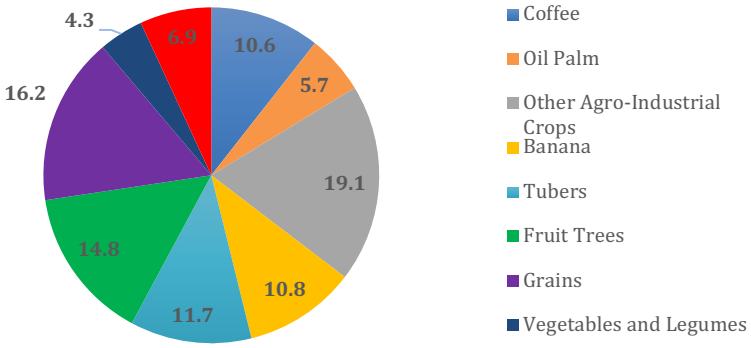
Source: Ministerio de Agricultura y Desarrollo Rural, 2017

III.III Characterization of the Colombian Agricultural Sector

The disappointing contribution of agriculture to rural household income is intimately linked to the performance the agricultural sector has had in the overall Colombian economy. Today, the country has approximately 43 million hectares of land in agricultural use. Out of these, 34.4 million are dedicated to livestock and 8.5 million are used for crop production. This distribution does not correspond to what is suitable for the use of the land, livestock uses approximately 230% more than it should, and only 22% of the land suitable for cropping is under cultivation (Oxfam, 2017). Figure 10 shows the distribution of crops that are currently in cultivation. According to the National Administrative Department of Statistics, DANE, in recent decades, permanent crops suited for exports have expanded to occupy almost 75% of the total area under cultivation and have progressively displaced temporary crops.

The snapshot of the agriculture sector today is similar to what it was at the turn of the 21st century. Between 1990 and 2013, the agricultural sectors of Latin American economies grew at an average rate of 2.6% annually, but Colombia's only managed to grow at 2.3% each year (Misión para la Transformación del Campo, 2015).

Figure 10 Share of Cultivated Area by Crop Type



Source: Oxfam, 2017

Furthermore, as stated above, agricultural productivity has remained almost stagnant and has persisted below global and regional productivity rates. As shown on Table 2, rice, bananas, sugar cane, oil palm and plantains increased their productivity marginally between 1990 and 2013, while coffee, wheat, cocoa, raw sugar, and fruits, are less productive now than they were almost 30 years ago (Misión para la Transformación del Campo, 2015).

Table 2 Average Yield (tons per Ha.) of the Main Agricultural Products

Yield	1990-1994	1995-1999	2000-2004	2005-2009	2010-2013
Temporary					
Rice	4.74	4.98	5.45	5.51	4.83
Vegetables	14.50	11.02	16.57	15.97	17.34
Corn	1.53	1.67	2.33	2.70	3.24
Potatoes	15.58	11.44	15.02	16.76	18.31
Sorghum	2.98	2.99	3.27	3.70	5.43
Soy	1.99	2.24	2.22	2.07	2.77
Wheat	1.90	1.76	1.74	1.85	1.79
Permanent					
Bananas	34.46	35.07	33.85	36.57	37.54
Cocoa	0.46	0.48	0.45	0.41	0.41
Coffee	0.99	0.83	0.94	0.85	0.65
Sugar Cane	123.10	107.44	118.27	138.09	130.40
Raw Sugar	14.55	13.02	14.54	15.35	13.49
Cut Flowers	31.28	32.89	33.08	34.11	42.29

Yield	1990-1994	1995-1999	2000-2004	2005-2009	2010-2013
Fruits	16.79	17.35	14.05	13.93	14.59
Oil Palm	2.81	3.58	3.91	3.75	3.22
Plantain	6.90	6.90	7.51	7.87	8.08

Source: Misión para la Transformación del Campo, 2015

The very limited increase in productivity attained by the agricultural sector over the years has led to a steady decrease in exports and an increase in imports, as both incomes and populations in urban areas have continually increased. The few cases in which exports have grown in the last 30 years have been pulled more by an increase in the product's price, than by significant increases in the exported volumes (Misión para la Transformación del Campo, 2015). The Misión para la Transformación del Campo suggests that this pattern reflects a lack of an adequate export portfolio, the absence of policies aimed at diversifying agricultural export products, the weakening of the Colombian Agricultural Institute (ICA), and the lack of coordination of sanitary and phytosanitary priorities with the foreign trade strategy (Misión para la Transformación del Campo, 2015).

The growth of the sector has also been hindered by the very limited provision of public goods and services, particularly access to science, technology and innovation, road infrastructure and land preparation and irrigation, which have resulted from low, and decreasing, government investment and spending in agriculture over the last three decades. In the last 20 years, annual public investment in agriculture has not exceeded 8% of GDP, and in 2017, the government allocated 1% of its budget to the sector (Ministerio de Hacienda, 2017; Misión para la Transformación del Campo, 2015). Furthermore, in recent years, an important share of the resources designated to be invested in agriculture have been allocated in response to social pressure and strikes, and the investments have lacked a long-term vision and significant impact (Departamento Nacional de Planeación, 2014; FAO and CAF, n.d.).

III.IV Limitations of the Structural Transformation Process in Colombia

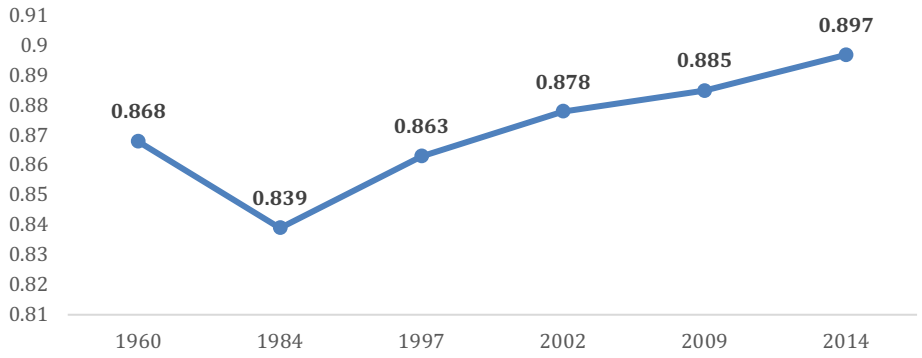
Unarguably, Colombia has advanced through the structural transformation process. The percentage of the sector's participation in the country's GDP has reached single digits, over 60% of the population now lives in large cities and other urban centers, and birth and death rates decreased significantly throughout the 20th century. However, the success of the process can be debated. Rural-urban disparities are large, and the agricultural sector has been immersed in a stagnant, low productivity streak since the beginning of the 90s. This section proposes three possible explanations – well intended but ineffective government policies, concentration of property and a bimodal tenure structure, and violence and conflict – to the unsuccessful transformation process.

Unfortunately, government policies have contributed to hinder the structural transformation process. Because productivity has always been low, but the sector has nonetheless been subsidized, producers have not had the necessary incentives to modify their agricultural practices and improve productivity. Furthermore, lack of infrastructure, weak property rights and very limited access to credit have all made investing in agriculture very difficult and risky. The Colombian government has been well intended, but its policies have been unable to capitalize on the country's privileged location in South America and the varied range of climate zones available, to turn agriculture into a major economic sector in an increasingly globalized world.

Also limiting the effect of the structural transformation is inequality. Colombia is currently the most unequal country in Latin America in terms of land distribution; the Gini Coefficient for rural property concentration was calculated at 0.897 in 2014, and what is most worrisome is the fact that it has shown an increasing trend over the last 50 years, as evidenced by Graph 11 (Oxfam, 2017). Based on information that was recently made public, Oxfam calculated that the largest 1% of holdings control 81% of the territory, and that the remaining 99% have only close to 20% of the available land to share. Additionally, Oxfam found that holdings that are less than 10 hectares and belong to smallholder farmers, are on average plots that are roughly 2 hectares in size, and these account for 80% of the number of plots in the country. On the

other hand, plots that are larger than 2,000 hectares, which amount to 1% of the plots in Colombia are on average 17,195 hectares and occupy approximately 60% of the territory (Oxfam, 2017). Adding to the challenge posed by inequality is the fact that most large farms belong to wealthy elites looking to amass assets rather than utilize them for productive purposes (Gáfaro et al., 2012; Oxfam, 2017).

Figure 11 Evolution of the Gini Coefficient for Rural Property Distribution



Source: Oxfam, 2017

Making an already bleak situation worse, rural Colombia has been the setting of over 50 years of armed conflict and violence. Fuerzas Armadas Revolucionarias de Colombia – FARC – arose as a guerrilla in the 1960s, protesting concentration of property and unequal opportunities for citizens in rural areas(García, 2009; Vélez, 2001). Their political ideals lost the spotlight with the emergence of drug trafficking in the late 1980s and violence worsened throughout the country, but traditionally marginalized regions were the most affected (García, 2009; Vélez, 2001). The widespread violence and insecurity made farmers, small and large, unwilling to invest and improve productivity, and turned many smallholders to coca leaf cultivation. In this 50-year period, the government has prioritized establishing its presence, maintaining law and order and trying to guarantee basic security, development-generating investments have been very limited (Misión para la Transformación del Campo, 2015).

The combination of inadequate government policies, inequality, and conflict and violence have mutually re-enforced each other and limited the effects of the weak structural transformation that took place

during the 20th century. Looking into the future, government, private organizations and civil society will have to work in close coordination to strengthen agricultural productivity and promote rural development.

IV. Value Chains for Development – An Alternative for Rural and Agricultural Development in Colombia

IV.I Value Chains for Development

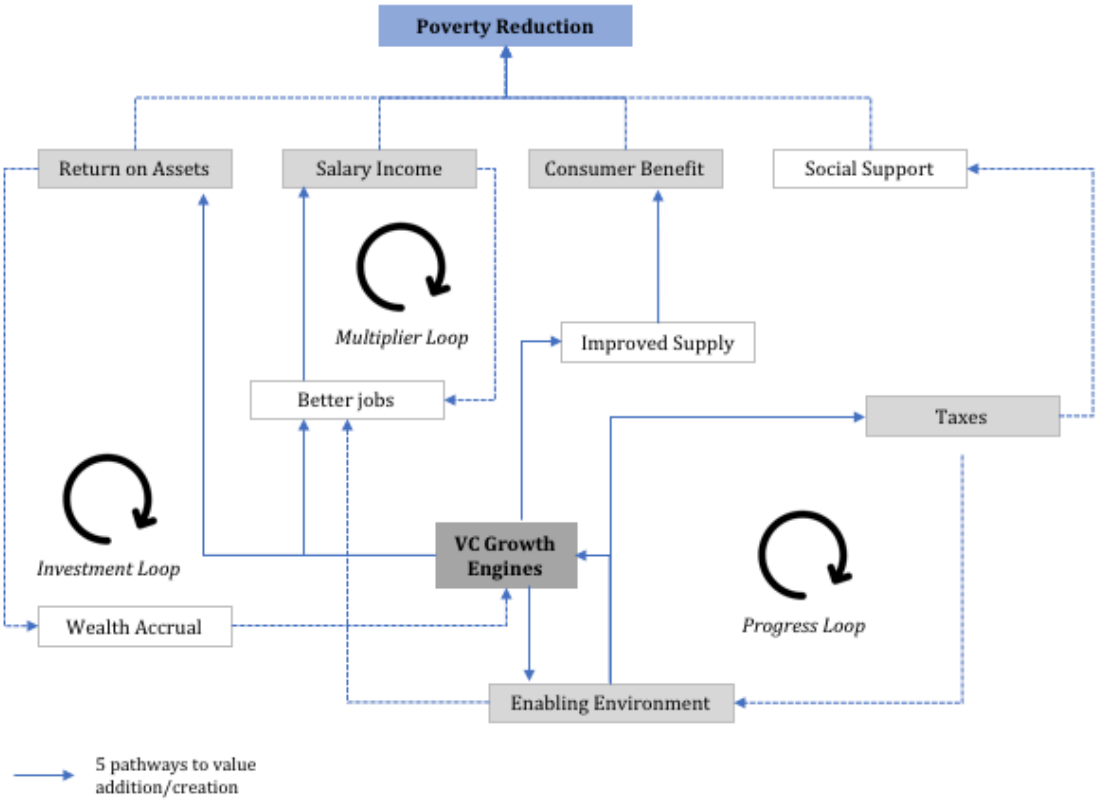
Understanding the current situation and the limitations of agricultural development in the past can provide a basis for proposing new strategies to turn Colombia's rural areas and its agricultural sector into engines for growth and socio-economic development. One of such strategies can be the promotion of value chain (VC) strengthening and development, which generates desirable changes within VCs to extend or improve productive operations and generate social benefits (UNIDO, 2011). This approach has been designated *Value Chains for Development* and is proposed as a way to integrate smallholder farmers into higher-value, globally integrated markets, which promise to increase producer incomes and promote smallholder access to important benefits and services (Ricketts et al., 2014; UNIDO, 2011).

According to the United Nation's Food and Agriculture Organization, VCs for development can function as an engine for growth by creating added value that is captured in five different ways: i) salaries for employees; ii) net profits for asset owners; iii) tax revenues to the government; iv) better supply to consumers; and v) externalities, which result in net impacts to society and the environment, either positive or negative (Neven, 2014). Traditionally led by the private sector, the main commercial objective of VCs has been to maximize profits, both by eliminating inefficiencies and maximizing aggregate revenues; in employing VCs as a tool for development, special emphasis must be placed on guaranteeing an equitable and proportional distribution of the benefits and revenues generated (Neven, 2014; UNIDO, 2009). The adding value activities across the VC set in motion three different growth loops, the investment, multiplier and growth loops, that relate to economic, social and environmental sustainability. Figure 12 depicts the sustainable development paradigm of VCs.

The investment loop works on the profits for asset owners dimension and contributes to accrual of wealth in the long run; it is driven by re-investing generated profits and savings and leads to improved productivity in the agricultural sector (Neven, 2014). Over time, increased productivity will commonly be

accompanied by increase in farm size, with resources shifting from less productive to more productive farms; it is worth mentioning that the shift in resources does not necessarily mean a shift in ownership, as land can be rented out and cooperatives can also play important roles (Neven, 2014; Timmer, 2007). Furthermore, growing farm businesses will increasingly depend on specialized enterprises both for their farming operations and for marketing their output, which presents multiple opportunities for the development of small and medium-sized agro-enterprises (Neven, 2014).

Figure 12 Sustainable Development Paradigm of Value Chains



Source: Neven, 2014

The multiplier loop, on the other hand, works on the salaries dimension. As productivity in farms increases and as more value is added to agricultural products further down the VC, wages along the VC should increase. At the same time however, less labor will be required to produce larger quantities of agricultural products and the surplus labor will have to find employment opportunities elsewhere (Neven, 2014). The combination of the two situations, the higher wages and rising incomes which enable increased

spending on products and services and the release of farming labor, leads to the emergence of multiple business opportunities and a shift from agriculture to other industries in manufacture and services, in line with the structural transformation process (Timmer and Akkus, 2008). Over time, the multiplier loop generates a positive re-enforcement mechanism through which more jobs in the services and industry sector generate higher salaries and increased spending on both agricultural, and non-agricultural products.

Finally, the progress loop acts on the enabling environment. As VCs develop, they become larger, more profitable and more formal, and this all leads to an increase in the tax base. Because tax revenues are largely derived from value added along VCs, value chain development can significantly contribute to the development of public safety nets (Neven, 2014). Furthermore, as incomes rise, social and environmental impacts of the agricultural system become more important to consumers and governments, and are increasingly incorporated in the business models and production costs (Neven, 2014).

Strategies for VC development improve processes, products, productivity and partnerships allowing farmers to increase their incomes and compete more effectively in the market (Ricketts et al., 2014). The United Nations Industrial Development Organization outlines three different types of interventions that lead to development and strengthening of VCs. First, interventions can be targeted at improving products, processes or volumes; this strategy is about doing things better or bigger, primarily through improvements in technology and management. The second group of interventions is intended to change and / or add functions which can lead to vertical or horizontal integrations across the VC. Finally, the third category refers to interventions that improve coordination within the VC, this often takes the form of vertical and horizontal contracting (UNIDO, 2011). These strategies are complementary and can be mutually re-enforcing. Nonetheless, to produce systemic changes and significantly contribute to sustainable development, these interventions require interest, commitment and collaboration from multiple stakeholders and VC participants (Ricketts et al., 2014).

Empirical work on the impacts of linking smallholder producers to high value markets and chains has been undertaken, it focuses primarily on increases in income and welfare (Bellemare, 2010; Wollni and Zeller, 2007), barriers and risks to participation (Barrett et al., 2012; Humphrey, 2005; Ricketts et al., 2014) and gains in productivity, food security and other spillover effects (Bellemare, 2010; Braun et al., 1989; Henson et al., 2008). However, limited documentation of specific cases, with their benefits and drawbacks, exists, and it is particularly rare for Colombian agri-business development. In that sense, this section provides a deeper, nuanced and more contextualized understanding of the potential that strengthening VCs can have in promoting social and economic development for Colombia's rural areas and communities. It does so through the documentation of two particular cases. First, CasaLuker is a family-owned business that has been processing and selling Colombian cocoa, sugarcane and coffee, within other products, to domestic and international clients for over 100 years. It is a key player in the Colombian cocoa VC and has contributed to shape its development and nature. Second, Wok is a restaurant chain serving Asian, primarily Japanese, Thai and Vietnamese food in Bogotá. Since opening in 1998, it has focused on sustainability, and sourcing its fresh fruits and vegetables from local producers, many of them smallholders, has been a big part of its strategy. The two cases selected encompass VCs for products that are of very different natures and thus of distinct orientations. Nonetheless, both have had, and will continue to have clear impacts on agricultural development in Colombia. Table 3 depicts four dimensions that were considered in the selection of the cases considered here.

Table 3 Dimensions Considered in the Selection of Cases

	Scale	*Term*	*Market*	*Processing Stage*
CasaLuker	Small Holder and Industrial	Perennial	Export	Intermediate
WOK	Small Holder	Short-Term	Domestic	Final

Source: Author's creation

The information presented throughout the cases and in the comparative analyses stems from semi-structured interviews with the companies, first conducted in person in Bogotá, between November and

December 2017, and other follow-up interviews conducted over the phone during the first semester of 2018. The questionnaire was designed to understand the value chain dynamics and size and gain the participant's insights regarding the current and potential impacts of the selected VCs for rural socioeconomic development in the country. The following sections will provide context on each of the companies and the products of interest, will present the dynamics and sizes of the chains, will comment on their current and potential socio-economic impact and will analyze the implications related to the facilitation of a structural transformation. The information provided stems from the interviews and phone calls, unless otherwise cited.

IV.II CasaLuker and the Cocoa Business

CasaLuker was founded in Manizales, Caldas, in 1904 by José Jesús Restrepo Jaramillo and Alfredo Restrepo Jaramillo; two years later it produced its first chocolate bar (Casa Luker, n.d.). In its early years, Luker expanded its operations by acquiring other chocolate producers and by the 1950s, the company was ready to transfer its chocolate production operation to Bogotá (Casa Luker, 2017). In 1978 Luker diversified its portfolio to include other cocoa derived products and bought machinery for cocoa butter extraction, powdered sugar and cocoa processing. In the early 1990s CasaLuker began roasting coffee and included premium ground coffee into its product portfolio (Casa Luker, 2017). Today, Luker participates in the food market with chocolate, coffee, and fruit products and vegetable oils and margarines, and also provides industrial supplies and general and personal hygiene products (Casa Luker, n.d.).

The market for cocoa in Colombia and the World

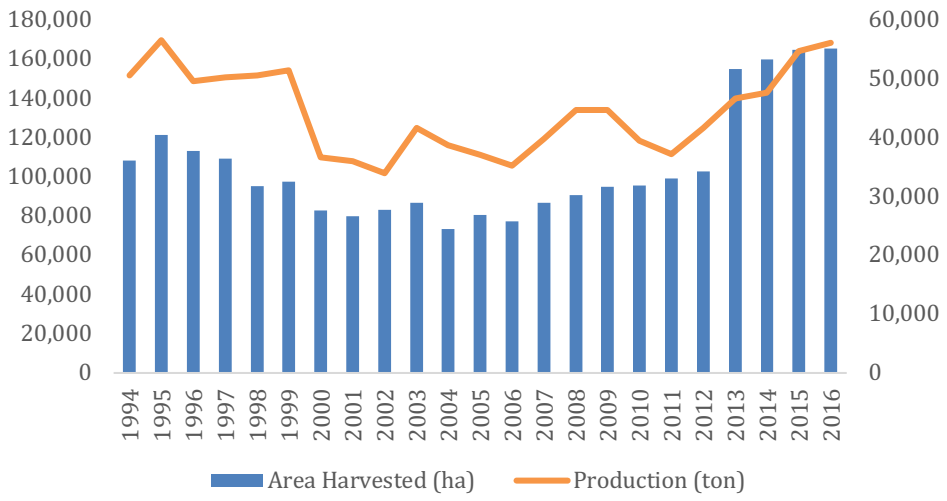
Cocoa originated in the Amazon and Orinoco regions of South America, was first introduced into Europe in the 16th century and gave rise to the chocolate industry in Europe in the 19th century (Casa Luker, 2017). Today, the world has three groups of commercial and genetic cocoa: i) *Criollo*, of excellent aromatic flavor, with complex caramel, flowery and fruity notes, but very scarce and susceptible to disease; ii) *Forastero*, which accounts for approximately 92% of global production and has a strong, bitter and slightly acidic and astringent flavor; and iii) *Trinitario*, a hybrid of the previous two with a broad range of aromatic

flavors. The first and third varieties have been classified by the International Cocoa Organization as Fine or Flavor Cocoa Varieties (FFC), because of their characteristic flavors (Casa Luker, 2017; International Cocoa Organization, 2017).

In 2016, global cocoa production reached a record of 4.5 million metric tons and it was largely provided by small-holder farmers (FAO, 2018; Franzen and Borgerhoff Mulder, 2007). The majority of the world's cocoa production takes place in Africa, Brazil and Asia, however, no FFC is produced in these regions; 76% of the world's FFC beans are harvested in Colombia, Ecuador, Peru and Venezuela. Despite cocoa being produced by tropical and less developed countries, it has historically been consumed by wealthier North American and European countries (Statista, 2015). However, as incomes in Asia, Africa and Latin America continue to rise, chocolate consumption is expected to increase especially within the higher income brackets in these countries (Pingali, 2007). Increased demand for chocolate is placing pressure on production; estimates conducted in 2014 suggested that consumers would demand 1 million metric tons in excess of what was being produced by 2020 and that the shortage would reach 2 million metric tons by 2030 (Ferdman, 2014).

Over the last 30 years, cocoa production in Colombia has been unstable, but overall, it increased by 11% between 1994 and 2016 (FAO, 2018). The total area harvested also increased over time: in 1994 the country had 108,000 hectares under cultivation, and by 2016 this area had reached 166,000 (FAO, 2018). Figure 13 shows the evolution of area planted and crop production for the period between 1994 and 2016. The main cocoa producing regions are Santander and Arauca, which respectively produce 45% and 12% of the national cocoa output, and as is the case globally, smallholder production accounts for approximately 90% of total production in Colombia (Casa Luker, 2017; García-Cáceres et al., 2014).

Figure 13 Evolution of Cocoa Production in Colombia



Source: FAOSTAT, 2018

Because of its potential for social and economic development, the Colombian government included the cocoa, chocolate and confectionary industry within the six highly prioritized ones in the agroindustrial sector (García-Cáceres et al., 2014; Procolombia, n.d.). The Ministry of Agriculture and Rural Development identified that there are about 2 million hectares well-suited for cocoa production in the country, and that the genetic material that could grow best in each of the different regions is readily available. The potential ten-fold increase in the area under cultivation would yield increased cocoa supplies that could be used to supply growing domestic markets or exported to meet the demands of the main cocoa-consuming countries, eight of which currently have free trade agreements with Colombia (Procolombia, n.d.).

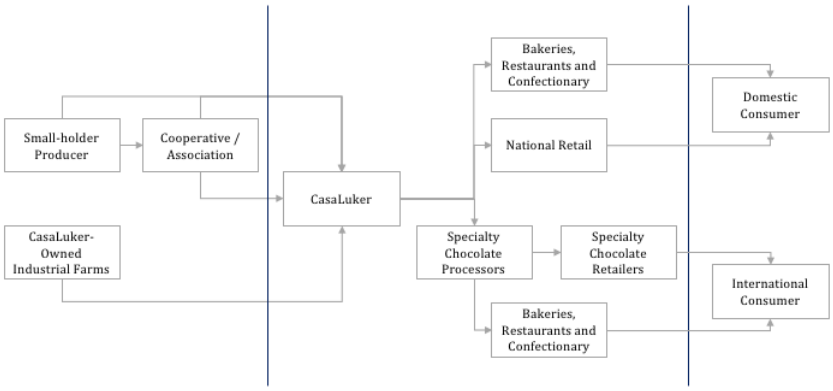
Value Chain Dynamics

For this paper's purpose, CasaLuker plays the leading role in a VC with participants that can be grouped into 10 different categories. It currently purchases over 30% of the cocoa produced in the country, second to Grupo Nutresa, the leading processed foods company in Colombia, who purchases close to 50% of the national production (Grupo Nutresa, 2018). Because CasaLuker's cocoa business is concentrated on FFC and export-focused, the company is interested in promoting growth and expansion, as cocoa, and

particularly FFC, have an interesting prospective in the international market. CasaLuker would like Colombia to continue to be positioned as an FFC producer, however, it realizes that this might be difficult, given that Nutresa and Fedecacao promote planting of CCN51, a Forastero variety that has higher yields but lower quality.

CasaLuker's relationships and articulation points with other members in its VC are depicted by Figure 14. The company has established a series of key points that facilitate its relationships with players both up- and downstream. In an effort to allow for dialogue, enable effective knowledge transfer mechanisms, and promote best practices in cocoa plantations, CasaLuker opened the Granja Luker in 1962. Its operation model and contributions will be elaborated on under the *Current and potential impact* section below. CasaLuker has also set up 7 centers that work as regional buying offices looking to eliminate the intermediaries between individual farmers, cooperatives and associations, and themselves. Concerning its upstream articulation with clients, CasaLuker has a sales department with differential focus on the national and export markets. Relationships with domestic buyers are managed through the headquarters in Bogotá, and relationships with international customers are managed, depending on the region, either through the headquarters, or through the CasaLuker office in Belgium. CasaLuker has no established articulation points beyond the retailers, processors, and bakeries, restaurants and confectionaries; there is no direct link between the company and the final consumers.

Figure 14 CasaLuker's Value Chain



The efforts made in establishing multiple points of contact with producers have resulted in CasaLuker developing mutually beneficial relationships with them. In 2017, Luker bought over 21,000 metric tons of cocoa from hundreds different producers, cooperatives or associations. With a transparent pricing mechanism, producers get paid for their beans according to the price determined by the international market. Enabled through evaluation at the regional buying offices, Luker also pays a premium for superior quality and FFC varieties. By favoring higher quality and FFC beans, CasaLuker hopes to influence producer decision-making with regards to the planting of Trinitario and Criollo variety trees and the adoption of best practices in planting, harvesting and post-harvesting.

Value Chain Size

In 2017, CasaLuker sourced its Cacao from hundreds of different producers. Currently, Colombia's cocoa production is in deficit, and as mentioned above, there is a global shortage of cocoa beans, which is estimated to continue to increase in the future (Ferdman, 2014). Consequently, the size of CasaLuker's VC is constrained by the supply of beans available. This is accentuated because Luker's business model is heavily focused on exporting processed FFC, which is in high demand in the United States, Europe and the wealthier income brackets in Asian countries (Pingali, 2007; Statista, 2015).

Expanding the VC would require increasing the supply of cocoa: this is likely to happen in the long run, as in the face of a high market demand for the commodity and favorable conditions for its production, the Colombian government has selected cocoa as a high-priority product for socio-economic development in rural areas (Ministerio de Agricultura y Desarrollo Rural, 2014). Nonetheless, the results of programs and strategies currently under implementation will be apparent in the medium-term. The long cycle of cocoa production also means that the introduction of better practices and innovations will take time before being noticeable. These two factors indicate that domestically increasing the size of the VC in the short run will encounter difficulties. Furthermore, because cocoa is a perennial crop that takes between 3 and 5 years to start bearing fruits, the VC presents important entry barriers to small-holder producers. Significant initial investments are required, and many small-holders cannot afford to wait as long before starting to recover

the investment. Additionally, because basic transportation infrastructure is often unavailable in rural areas in Colombia, it might be hard to take the harvested beans out to market. The entry barriers identified may pose limits to the growth of the VC in the long-run as well.

Aware of the challenges to increase its VC size, in 2011 CasaLuker decided on a different approach to growing cocoa production and supply in Colombia. The company is backward-integrating and pursuing large-scale cocoa production to complement its traditional procurement strategy. They have a 500-hectare plantation in Necoclí, Antioquia, which is currently in production. In addition, the company is planting 1,000 more hectares in a farm that was previously dedicated to palm-oil in Casanare. They're also planning on a third large-scale demonstrative project in the Huila department. In the coming years CasaLuker will focus on attracting third parties, both small-holders and commercial farms, into planting cocoa, and expects to turn the communities and regions of its large-scale plantations into cocoa-producing clusters.

Current and Potential Positive Impact

Cacao production is an income generating activity for 25,000 to 38,000 families in Colombia (Casa Luker, 2017; García-Cáceres et al., 2014). Over the years, these producers and their families have benefitted from selling their production. However, because yields per hectare are low (the national average is estimated at 0.3 ton per hectare per year), smallholder cocoa producers cannot rely solely on the crop's production as their means of support. Traditionally farmers plant cocoa in intercropped systems with plantain, cassava or corn. Additionally, under the current production scheme, cocoa is not a labor-generating activity, the single-family production units are characterized by high reliance on family labor and low employment of hired labor (Ramírez Sulvarán et al., 2014). CasaLuker's large-scale producing schemes partially counter these limitations. With access to financial markets and adequate availability of capital, the farms have been set up and are run to guarantee high productivity, yields of over 1 ton per hectare per year, and because cocoa is a labor-intensive crop, these farms have turned into important labor-generating centers for the communities that surround them. Furthermore, the farms create formal labor

opportunities, rare in rural Colombia, and guarantee enrollment to the country's social security system, providing access to health care services and retirement and pension funds.

Regarding the strengthening of human capital, CasaLuker has historically demonstrated strong commitment to providing opportunities to improved technology in cocoa production. Granja Luker was set up in the early 1960s as a research and extension center for cocoa, and to this day, it remains one of the few in Latin America. Its goal is to modernize and improve the production and conservation technologies for FFC, providing benefits for smallholders who rely on the crop for their livelihoods and to also guarantee a higher quality product for their consumers (Casa Luker, 2017). Granja Luker has developed a training model to help producers grow and harvest top-quality cocoa, improve productivity and increase family incomes. Approximately 700 farmers complete the program each year, and since its inauguration, close to 30,000 producers have completed the training (Casa Luker, 2017). With the recent focus on establishing large-scale cocoa plantations, Luker is developing a new approach for knowledge transfer on best practices for production. In training its employees, Luker is enhancing their knowledge and promoting agriculture as an alternative to improve their livelihoods; the farms have been set-up with the idea of turning these communities into cocoa clusters and inviting locals to produce the beans and take advantage of the capacities that Luker has put in place at their plantations. Small-scale farmers could benefit from the physical infrastructure, technical expertise and assistance, and easy and direct market access that the Luker farms provide. Although Luker is yet to see its intended clusters develop, the community at Necoclí, where the first large-scale farm was established, has started to turn to agriculture as a means for improving household food security and as a source of additional income.

CasaLuker also contributes to socio-economic development by promoting financial inclusion in rural areas in Colombia. The company requires a bank account to make payments, both to smallholders who take their harvests to the buying offices, and to its employees at the large-scale farms. Thus, Luker is indirectly sponsoring participation in the formal financial sector, and this can lead to improved access to credit and other financial services down the line (Laureti and Hamp, 2011; Turvey, 2017). Furthermore,

CasaLuker is currently exploring the possibility of entering a partnership with a bank or Microfinance Institution to develop a credit product tailored to meet the needs of cocoa growers; Luker is aware that many smallholder producers may have difficulties in accessing financial opportunities because credit services available are not well suited for long-cycle crops.

The income-generating dynamics, the sponsoring of increases in human capital and the promotion of financial inclusion, all potentially have important spill-over effects for the smallholder's families and their communities. However, with over 100 years of working with cocoa producers in different regions of the country, CasaLuker feels that the impact on the farmers' and communities' socio-economic development has been limited, and in most cases, slow to come. Low productivity and small plantations are not a recipe for success in overcoming poverty, and there are many other factors, such as access to education, healthcare and other fundamental needs, outside of Luker's scope of influence, that hinder and limit the development process. Partly because of this, and surely because it makes business and financial sense, CasaLuker is pursuing its large-scale plantation strategy. It believes that setting up plantations in areas that have been traditionally marginalized and abandoned by the state has the potential to quickly change dynamics for whole communities and jump-start socio-economic development. Furthermore, as part of the strategy, CasaLuker has accompanied its investment and business development strategy at these communities, with strong participation from Fundación Luker, a private foundation started by the company in 1994, whose emphasis is on education, cultural initiatives and entrepreneurship (Fundación Luker, n.d.).

Current and potential impacts of agriculture must also include the environmental dimension. Luker understands it has a key role in teaching and promoting good agricultural practices to smallholder farmers, and part of the training that takes place at Granja Luker focuses on these areas. Luker has also become an advocate of planting cocoa in agro-forestry systems and this is particularly important, given that the cocoa tree has been approved by the Colombian government as a species for reforestation. With the public and private sectors, as well as the international community, interested in promoting re-forestation, cocoa becomes an attractive alternative for productive re-forestation; if cocoa is planted in areas that were

previously grasslands, there is immense potential to increase both the number of trees and the amount of carbon sequestered, producing clear, positive environmental impacts (Ruf, 2001). The Nature Conservancy is successfully implementing one such project in Brazil, intercropping cocoa with banana trees and a mix of hardwood native trees to help restore the Amazon while providing better livelihoods (The Nature Conservancy, n.d.). Finally, looking into the future, CasaLuker realizes that water management will be of increased importance and it has begun to conduct research and development on this area. They plan on sharing their results with suppliers and with producers who continue to access the trainings at Granja Luker.

IV.III Wok and Fresh Fruits and Vegetables for the Restaurant Business

Wok was started by Benjamín Villegas, and three other partners, in 1998 in Bogotá to offer superior quality Asian food at reasonable prices (Lobo et al., 2012). Two years later, the partners sold to Villegas, and Ricardo Macía, who had worked as the CEO of one of the most important restaurant chains in the country joined Wok as Villegas' partner. The year after Macía joined, Wok opened its second venue, and by 2011, Wok had nine different restaurants, 380 employees and annual sales of over 18 million dollars (Lobo et al., 2012). Today, Wok has 15 venues in Bogotá and its metropolitan area and hosts close to 2.8 million customers each year.

Colombia, unlike Brazil and Peru, does not have oriental immigrants or contact with Asian cuisine, and therefore many of the ingredients required to prepare Asian food were not produced, or even known in the country. Since the beginning, Wok understood that quality of the ingredients is paramount to superior quality and taste, consequently, they have made efforts to develop and produce local varieties of Asian ingredients. What was initially a quest for good quality inputs turned into a strategy for local small-holder producer development. Starting in 2004, Wok set goals to reduce the proportion of imported ingredients and today, the restaurant continues to work towards achieving this objective (Lobo et al., 2012).

Over the years, Wok has designed and implemented a sustainability strategy, and in the words of Macía has looked to develop as a *healthy* restaurant, one that respects the people, the clients, the suppliers,

the communities and the environment (Lobo et al., 2012). In 2009, the restaurant decided to extend its local-sourcing guideline to the core of its business, fish, and partnered with Fundación MarViva and two small fishing communities on the Pacific Coast to sustainably procure all of the fish required. Concerned with the effects of un-discriminated industrial fishing practices, to Wok this made sense because they would be able to control where the fish was coming from and how it had been caught and handled (Lobo et al., 2012). The strategies implemented over the years have led Wok to being recognized as a sustainability-oriented restaurant, concerned with the social, economic and environmental well-being of the communities with which it works and serves.

The Fresh Fruit and Vegetable market in Colombia and the World

Fresh fruit and vegetable (FFV) production in the world has followed an increasing trend, with total area planted reaching an all-time high of about 20.5 million hectares in 2016, yielding a total production of over 290 million tons (FAO, 2018). This increasing trend has largely been driven by an increase in demand; as with income growth and urbanization, the process of diet diversification has moved forward, and demand for vegetables and fruits, as well as that for other non-staple products, has increased globally (Pingali and Sunder, 2017). Nonetheless, fresh fruit and vegetable production continues to be limited, primarily because research and development for nutritionally important crops has been restricted, and also because poor market infrastructure across developing countries has impeded small-holder participation in FFV VCs (Pingali and Sunder, 2017). Production is further limited by the fact that small-holders face high transaction costs to meet stringent safety and quality standards, and in a market dominated by large supermarket chains, rely heavily on intermediaries to participate in the VCs (Lee et al., 2012).

FFV production in Colombia has not shown a stable trend over time, nonetheless in the period between 2006 and 2013, both total production, measured in tons, and number of hectares planted, increased (more recent data is not included as 2013 is the last year with data available) (Ministerio de Agricultura y Desarrollo Rural, 2016). In 2006, the majority of production and harvest of vegetables took place in Cundinamarca, Boyacá and Nariño, these three departments accounted for 70% of the total area harvested,

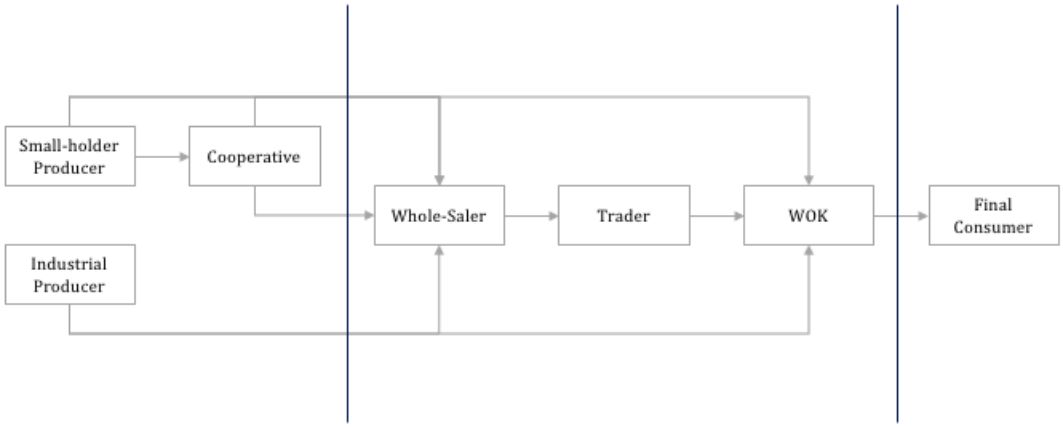
and regarding fruits, Antioquia and Magdalena headed the list as banana was the main fruit product in the country (Corporación Colombia Internacional, 2006; Ministerio de Agricultura y Desarrollo Rural, 2016). Production of fruits and vegetables in Colombia is divided between small-holder farmers and large industrial farms, the latter mainly concentrated in export crops such as banana, plantain and avocados.

Colombia has key advantages in the production of FFV; because of its location on the equator and its variety of altitudes, it can produce a wide array of agricultural products. Furthermore, its strategic position in the South American continent and its access to both the Atlantic and Pacific Oceans result in logistic advantages for exporting fresh products (Corporación Colombia Internacional, 2006). Understanding the potential of the sector, in 2014 the Ministry of Agriculture and Rural Development prioritized the FFV industry and the government included it within the Productive Transformation Program that seeks to transform 16 different industries, including beauty and hygiene products, fashion, hospitality and tourism, and software and IT services, within others, into leading sectors for the economy (Ministerio de Agricultura y Desarrollo Rural, 2014; Procolombia, n.d.). The Ministry set the goal of doubling the area of FFV planted and increasing productivity, to contribute to the re-activation of the agricultural sector in the country (Ministerio de Agricultura y Desarrollo Rural, 2014).

Value Chain Dynamics

Wok is also the leader in its VC. Apparently less complicated and with fewer participant categories (there are only five other actor categories, including the final consumers), the VC depicted by Figure 15 is an aggregated representation of the individual VCs for all the different fresh fruits and vegetables that Wok purchases. Pioneer in the farm-to-table and local food movement in restaurants in Bogotá, Wok has opened the market for many products and has paved the way for new actors to enter and participate. Operating a restaurant chain with 15 venues and being committed to sourcing as many products locally has resulted in significant logistic challenges, but because it is a central part of what it is, Wok has developed processes and systems that enable this operation. When the first restaurant opened in 1998, approximately 80% of the ingredients, measured in costs, were imported, today, close to 55% are domestically produced.

Figure 15 WOK's Value Chain



Wok's business model, defined around offering excellent quality food at affordable prices, has determined the characteristics of the products they buy. Additionally, because sustainability is a major concern, from its early days, Wok has been very careful in establishing close and direct relationships with its suppliers. The procurement and sustainability areas of the restaurant know most of the suppliers personally; the restaurant is convinced that personal relationships have been key in the success of their model. Wok argues that when the farmer knows them personally, he or she feels a greater compromise in keeping up to his part of the agreement than when the relationship is mediated only through a contract. Dependency is another word that often describes Wok's relationships with its suppliers. In many cases, Wok has one supplier for each product, and it is also frequent for them to be the producer's only client. This is especially true for critical, hard to find products. Wok realizes this is risky, both for them and for the producers, and as such, is making an effort to diversify its producer base, as well as encouraging its suppliers to find other buyers. The degree to which Wok's relationships with its suppliers are close and interdependent is well exemplified by the fact that there are certain products which are tailor-produced and sold exclusively to them, in most cases, even without having signed confidentiality agreements. These close, personal and trust-based relationships have allowed Wok to guarantee the superior quality of the produce they buy, and the excellent quality of the food they sell.

The sourcing of close to 150 tons of fruits and vegetables each month is recurrent, some products are even delivered more than once in the same week and some of them travel far, most of Wok's products are grown in the departments of Cundinamarca, Antioquia, Valle del Cauca and Putumayo. Although Wok does not *demonize* middle-men, they only allow them in the chain when they effectively add value to the product or process; the primary interest is in transferring the highest portion of the price as possible to the producers. Prices paid by Wok are fair: Sometimes they are set by the producers and others by Wok for determined periods of time; at other instances, they can be variable throughout the year, but they're always at, or close to market value, and producers who sell to Wok benefit from this greatly because the restaurant buys large volumes. Furthermore, Wok's payment policies have also been designed to help the producers. In an industry that usually pays between 45 and 90 days after delivery, most of Wok's producers are paid two weeks after delivering, and at most, 30 days later.

Value Chain Size

With 15 venues currently in operation and serving approximately 230,000 customers each month, Wok's VC size is primarily demand determined. The restaurant currently buys 38 tons of fruits and vegetables weekly from multiple suppliers. Despite Wok setting the demand for its required products, because of its commitment to sourcing locally and promoting sustainability by respecting the availability and seasonality of production, the restaurant has adopted the practice of not offering certain items on its menu when the key ingredients are not available and has even gone as far as modifying the menu to reflect its priorities.

The nature of the logistics required for Wok's operation are determinant in the size of the VC. The strict quality standards and the large volumes required pose an important challenge for many small-holder producers, and the frequent and recurrent deliveries required discourage many from participating in the chain. Up to date, Wok has only invested in procurement logistics for the fish and seafood products, for FFV, the restaurant has one procurement center and requires all suppliers to deliver their products there with specific time spans, depending on each product's characteristics.

Whenever possible, Wok would rather source the complete volume required of each product from one supplier. This allows for better traceability and helps guarantee the safety of all of its ingredients. Because of this, Wok's growth has led to growth all along its VC. Historically Wok has given its suppliers a four to six-month notice when planning on opening a new restaurant. This allows suppliers to prepare and increase their production to meet the new demand. Suppliers who have been with the restaurant for a long time understand that opening a new venue entails risk and uncertainty, but most of them are willing to expand their production and take part in the projects, although Wok can't guarantee what the new volumes demanded will be. The VC also grows with the inclusion of new suppliers. This process is a combination of proactively looking for suppliers of key ingredients, and sorting through proposals Wok receives from producers interested in having them as their client. Over the years, the second approach has become increasingly important, Wok currently receives between 10 and 15 new product offerings monthly.

In pursuing its goal of decreasing the percentage of imported ingredients to 20% and expanding the domestic branches of its VC, Wok has faced difficulties related to the lack of infrastructure available. When critical to its business, and possible, Wok has helped small-holders develop the infrastructure required to effectively participate in the VC, but there have been many other instances in which it hasn't been feasible. Limited large-scale infrastructure often obstructs procurement efforts and precludes the establishment of mutually beneficial commercial relationships.

Current and Potential Positive Impact

The fresh fruit and vegetables sector generated direct employment opportunities for 527,000 people in Colombia in 2016 (Asohofrucol, 2016). After coffee, it was the agricultural activity which most contributed to the generation of jobs, as it is a highly labor intensive sector (Asohofrucol, 2016). Wok, who purchases 38 tons of fresh fruits and vegetables weekly, is a big buyer and is directly related to 128 producers in different regions of the country. Wok's acquisition of fresh fruits and vegetables translates into income-generation opportunities for smallholder producers and can also foster the creation of additional jobs, as hired labor may be required for the harvest and post-harvest processes.

Because of its focus on small-holder producer procurement and the high-quality standards that they've set, knowledge transfer has been an important part of Wok's relationships with its suppliers. For many years, knowledge transfer processes were very informal, when Wok established new commercial relationships, they'd help the producers set up production to comply with their criteria, mainly in terms of product quality and safety. Knowledge transfer opportunities also presented themselves when Wok had access to better production and agricultural practices and shared them with the smallholder suppliers. Many times, these improved practices came from different smallholders producing other products in Wok's supply chain. Both approximations have yielded positive results because of how close, and personal, Wok's relationships with its suppliers are; they allow for quick and relevant feedback. More recently, however, the restaurant has been looking to formalize its extension and knowledge transfer processes. They are currently developing the *Proyecto Alacena* with Fondo Acción, a local NGO, to conduct diagnostics on products and production processes, devise action plans to bridge the gaps and capitalize on the strengths, and, provide support during the implementation of the action plans. Through this new program, Wok is hoping to support its producer's development and provide orientation on six different dimensions: good agricultural practices, product quality, logistics, environmental matters, labor issues and occupational security. *Proyecto Alacena* is currently being piloted with 8 suppliers and Wok is looking to scale it to cover all of its suppliers over the next couple of years. Despite being offered for free, the project has encountered difficulties in finding suppliers willing to participate and commit.

Simultaneously, Wok has been working to develop an evaluation tool to monitor and track producer performance on six different aspects. Through this tool, they hope to compare their suppliers based on results for each of the dimensions and also monitor how each of the individual suppliers has moved forward and improved over time. Overall, by setting strict production and quality requirements, and helping the suppliers to meet them, Wok has generated positive human capital development dynamics and contributed to the professionalization of the sector.

Wok has also contributed to the socioeconomic development of the rural sector in Colombia by indirectly promoting financial inclusion. They require each producer, cooperative or association to have a bank account where they can receive a wire transfer. As mentioned above, participation through savings accounts in the formal financial sector has been shown to have positive impacts in the acquisition of other financial products and services for smallholder producers (Laureti and Hamp, 2011; Turvey, 2017). Nonetheless, for many smallholder farmers, taking credit from a formal bank may be hard and/or inconvenient, as the financial services offered may not be well suited for the smallholder's needs. Wok is currently looking to establish a partnership with a bank or microfinance institution who would be willing to offer the suppliers credit tailored to their needs and with Wok's commitment to buy the production as collateral as a means to improving producers' access to opportunities for financing. Nonetheless, for many smallholder farmers, taking credit from a formal bank may be hard and/or inconvenient, as the financial services offered may not be well suited for agricultural production. Wok, like CasaLuker is currently looking to establish a partnership with a bank or microfinance institution who would be willing to offer the suppliers credit tailored to their needs and with Wok's commitment to buy the production as collateral as a means to improving producers' access to opportunities for financing.

Despite providing steady income-generating opportunities, alternatives for human capital development, and, indirectly promoting financial inclusion in rural areas, the positive socio-economic impacts on communities are hard to evaluate for Wok. Close relationships with its suppliers have allowed Wok to follow the producers who have been with them for a very long time and evaluate the progress they and their families have made. Nonetheless, because its suppliers are dispersed throughout the country, in most cases, it is difficult to evaluate the effects of well-established commercial relationships on socio-economic development beyond these individual producers and their families. There have been certain instances in which Wok has worked with NGOs and international aid agencies that are implementing development projects with specific communities; Wok's role in these projects is guaranteeing a market for the products, and in these cases, systemic changes and impact are apparent. One of such projects was started

by USAID with a community in Putumayo to grow pepper, Wok now sources all of its pepper from this community and opened the market for other restaurants in Bogotá to source from the same producers.

Finally, environmental impacts, have historically been and continue to be an important concern for Wok. The restaurant looks to mitigate its environmental harm throughout the value chain. Upstream, into the agricultural production, Wok selects its suppliers based on the responsibility of their environmental practices and encourages the use of as little chemical inputs as possible, the application of only blue and green seal agrochemicals when necessary, and good water management practices. By sourcing locally, Wok is also looking to reduce the food miles and to mitigate the environmental harm of its operation; significant differences exist for products that were previously imported from other countries in Latin America and Asia and are now grown a couple of hours away from Bogotá, such as the Siam Basil and the Bok Choy. Within its restaurant operation, Wok has paid special attention to reducing food waste and trash; it has designed and implemented campaigns to promote less use of plastic among customers, and in a country where recycling and responsible waste management is not frequent, Wok separates all organic waste for composting and goes the extra mile to ensure that recyclables don't end up in landfills.

IV.IV Cross Analysis of the CasaLuker and Wok Cases, Implications and Limitations

CasaLuker and Wok are examples of VCs that span very different products and are of distinct orientations, as such, their chain dynamics and size differ for most of the dimensions analyzed. Nonetheless, their current and potential impacts have important similarities and it is clear that over the years, both of them have contributed to agricultural and rural development in Colombia. Table 4 presents a summary of the key findings for each of the dimensions reviewed. The following paragraphs will cross analyze the chain dynamics, sizes and impacts, and comment on the implications and limitations of the VCs in the face of transforming the Colombian agricultural sector into an engine for long-term, sustainable socio-economic development.

Table 4 Case Analysis Summary Chart

Dimension of Analysis	CasaLuker	Wok
Value Chain Dynamics		
Chain Leader	CasaLuker	Wok
Articulation points	Granja Luker and Regional Buying Offices	Procurement and Sustainability areas
Relationships	Relationships managed through producer associations and cooperatives	Direct, personal and interdependent relationships
Pricing	Price determined by international commodity markets plus a premium for FFC varieties	Price set depending on product characteristics; may be fixed or variable throughout the year
Product attributes / Certifications	Do not favor certifications	Do not favor certifications; suggest ICAs Good Agricultural Practices
Value Chain Size		
Volume (tons per year)	22,000	1,800
Volume - supply or demand determined	Supply (quality) determined	Mixed
Number of suppliers	Hundreds – no specific record	128
Number of buyers / retail outlets	NA	15 restaurants; approximately 230,000 customers per month
Other limiting factors for VC size	- Variety of cocoa grown - Rigorosity of post-harvest processes - Access to infrastructure	- Availability and seasonality of production - Organic product price - Access to infrastructure
Entry and exit barriers	Entry barriers - Significant initial investment, long-cycle crop, access to infrastructure (roads and availability of transportation) Exit barrier - perennial crop	Entry Barriers - High quality products and large volumes required; constant and recurrent deliveries
Promotion and management of growth and expansion	- Help smallholders achieve greater productivity - Promotion of cocoa hub development - Investing and developing large-scale plantations	-Promote growth of current suppliers - Constantly expand chain by including new suppliers
Current and Potential Positive Impact		
Value (MM USD) of procurement in 2016	NA	3,234
Income Generation - Formal Employment - Labor Opportunities	-Income generation for small-holder producers -Formal and stable employment in large-scale farms	-Income generation for small-holder producers

Human Capital - *knowledge transfer and training*	- Granja Luker - Train employees at large-scale farms - Large-scale farms as extension centers	- Informal knowledge transfer and promotion of good agricultural practices - through direct and close relationships - In process of formalizing supplier strengthening program: Proyecto Alacena - Compliance to strict quality standards, combined with guidance to achieve them
Financial Inclusion	- Require bank account for payments - Looking to partner with bank or MFI that can provide access to credit	- Require bank account for payments - Looking to partner with bank or MFI that can provide access to credit
Spillover effects on communities	- Limited spill-over effects when working with producer associations and cooperatives - Large-scale plantations have high potential of contributing to community development quickly	-Difficult to evaluate impact beyond producer and his/her family -In certain cases work with development agencies that are implementing projects; systemic impact is easily seen there
Environmental Considerations	- Promote good agricultural practices - Advocate for Cocoa plantations in agroforestry systems - Promote planting of cocoa trees for re-forestation - Currently researching good water management and irrigation practices	- Emphasis on environmental sustainability since the beginning - Local sourcing and procurement to mitigate the environmental harm - decrease food miles and supervise and control production processes - Because of business model, cannot afford to go organic but promote good agricultural practices and do everything possible to source clean ag products

Source: Author's creation

In comparing the VC dynamics, the first element that must be noted is that both CasaLuker and Wok are the leaders of their VCs. This is important because they have both played key roles in shaping the development and nature of their chains, and currently have, and will probably continue to hold, significant degrees of power within them. Furthermore, in both cases, the leaders are also at the center of the articulation between the upstream and downstream participants in the VCs. It must also be noted that CasaLuker and Wok have both set up their VCs and relationships with the other participants in the chains in ways that seek to eliminate the intermediaries, or to allow their participation only when they can clearly add value along the VC. Wok has gone as far as to establish personal and direct relationships and connections with all of the downstream participants in its chain while CasaLuker, on the other hand, manages its relationships through associations or cooperatives of smallholder cocoa producers. The fact

that both companies are the leaders of their VCs is positive; they are solid companies in their sectors that will continue to grow, and through stable, long-term relationships with their suppliers, will promote smallholder growth and development in their industries.

Despite the clear similarities, there are a couple of aspects on which the chain dynamics of these cases differ. The first one is the nature and orientation of the chain. CasaLuker procures FFC beans, a non-perishable product, to process and export intermediate products. On the contrary, Wok purchases 137 different fresh fruits and vegetables as ingredients to transform into the over 90 starters and entrees, 50 different types of sushi and 32 fruit-based drinks on its menu. A second dimension in which the two cases are different is in their relationships with the final consumers. Luker exports processed cocoa butter, powder and tablets which are then transformed into chocolates, and chocolate containing sweets and deserts, and has no direct relationship with the final consumer. Contrastingly, for the most part Wok does the complete transformation of the FFV products and sells them to its customers in 15 different venues. Being in direct contact with the final consumer allows Wok to tailor its menu to accommodate FFV flow along the VC, this however, requires tight coordination between and within actors. Because of the differing nature of the products and businesses, logistics and coordination is more critical to Wok's success than to CasaLuker's.

Regarding the dimensions considered for chain size, the cases analyzed are mostly different. CasaLuker leads a large chain for a commodity product that continuously trades in the world market, it acquires approximately 22,000 tons of cocoa beans annually. Wok, for its part, acquires 1,800 tons high quality fresh produce monthly to serve a niche market in high and middle-income areas of Bogotá. Although it is likely that both chains will continue to grow, as the demand for cocoa and chocolate is growing world-wide and Wok could open more restaurants in Bogota and in other cities in the country, as has been the case in the past, the essence of the future expansion will probably be distinct. VC growth for Luker is driven by the increasing demand in the world market and it has happened primarily through the inclusion of new cocoa bean suppliers. To a lesser extent Luker's VC has also grown through the increased productivity of their existing suppliers. Despite its efforts for expansion, demand for high quality cocoa

continues to be higher than its supply and this led CasaLuker to backward integrate; the company now owns and operates two large-scale FFC producing farms. In Wok's case, growth has been led directly by them, through the opening of new venues. Consequently, the restaurant has required its suppliers to expand production to meet the new demand, and as such has fostered the overall growth of the VC. Growth of the VC has also been mediated through the inclusion of new participants, when new items requiring different ingredients have been added to the menu, Wok has expanded its chain to include new producers.

Although the nature and orientation of the two VCs is different, and the chain size and dynamics have both points of similarity and variance, the current and potential positive impacts that stem from Wok and CasaLuker's VCs are greatly alike. Through the procurement of agricultural products from smallholder farmers, both companies foster income-generating opportunities and also contribute to the generation of jobs; Luker by directly employing the neighboring communities in the large-scale production farms and Wok by requiring high-quality FFVs which are labor-intensive in the planting, harvesting and post-harvest processes. In both cases, it is not only the jobs that are being created, but also the fact that these jobs have better conditions, which are rarely available in Colombian rural areas, that result in positive impacts for the communities. Historically, both companies have also been pre-occupied with knowledge transfer and the sponsorship of human capital development among their suppliers. Luker has been running the Granja Luker for over 50 years and has trained close to 30,000 cocoa producers in this time period. Wok, for its part, through its tightly-knit, personal relationships with suppliers, has ensured the adoption of best practices throughout the different processes to guarantee the desired quality and characteristics for their products. Both companies have also indirectly contributed to the financial inclusion of Colombia's rural areas; they require bank accounts for their payments and are currently separately exploring partnerships and alliances with banks or microfinance institutions to design and offer tailored products to their suppliers. Finally, both CasaLuker and Wok understand the environmental impact of agriculture and their operations and strive to minimize the negative externalities generated. Wok is further along the environmental sustainability path, incorporating best practices into every core aspect and decision of its business, but Luker also realizes its

importance and is increasingly investing in research and development into environmentally friendly practices.

While the contributions made by Wok and CasaLuker to Colombia's agricultural development are evident, not business as usual nor further growth of these VCs are likely to lead to a renewed structural transformation for the country's rural areas. Despite both companies' best interests, efficacy at eliminating intermediaries and commitment to paying fair prices, the distribution of benefits throughout the VC continues to be greatly unequal; this is inherently linked to the fact that smallholder producers are only performing primary agricultural activities, they are adding little or no value to their products. In this sense, Wok and CasaLuker are sponsoring income-generating opportunities for thousands of small-holder producers and are contributing to improving the productivity and competitiveness of the agricultural sector but are not directly providing opportunities for sustained socio-economic development. Furthermore, because of the way in which the VCs and businesses are set up, smallholder producers couldn't perform value-adding activities within the VC without interfering with the core activities of the chain leaders' business. The previous outcomes suggest that the two VCs analyzed only partially set in motion the investment and multiplier loops, and therefore will have limited impacts on overall rural development.

Extending these findings to other agriculture related VCs, it can be inferred that private-sector VC development is not sufficient to spark the renewal of the structural transformation process, and lead to profound and transformative changes and sustainable socio-economic development for rural Colombia. As such, to effectively turn VCs into a tool and pathway for development, active and comprehensive participation of the government is required. The country is in urgent need for more and better basic infrastructure, more roads, more schools and universities, and more hospitals. Without these, higher incomes in rural areas will only turn into higher consumption and will not translate into improved and increased opportunities. Chain-specific investments in infrastructure are also required to promote the completion of more value-adding activities by small-holder producers and a more equitable distribution of the benefits along the VC. Furthermore, the government also has a crucial responsibility in formulating

public policy oriented at facilitating the organization of rural dwellers and institutions in such a way that guarantees more value addition and greater industrialization of the agricultural sector. Clearer, but more flexible regulations for cooperatives and associations, as well as specific safety and quality guidelines and standards are two examples of policy areas that can help smallholder producers and also benefit the VC as a whole. Comprehensive public policy must help Colombia turn away from being a producer and exporter of primary products and agricultural commodities and begin to perform the value adding processes that historically have been conducted in more developed countries.

Nonetheless, articulation of the public, private and social sectors around value chains for development can lead to the successful development of VCs and the transformation of specific agricultural industries in developing countries, as evidenced by the Amul Dairy Cooperatives in India. With over 1.3 billion people, India is the second most populated country in the world, it accounts for approximately 18% of the world's human population, but only has 11% of its cultivated land area and an even smaller share of global pastures. India is also the land of cattle and of milk, but unlike other large milk-producing countries, over 70% of the cattle in the dairy network are owned in small herds, of one or two cows or buffalo per family, and fed with crop residues and scrubby forage (FAO, 2018; Kurien, 1997; World Bank Database, 2017). Traditionally, urban consumers obtained milk from traders who transported it in small quantities from nearby villages, or from city-based dairy operations. In 1946, the dairy farmers of the Khaira district revolted against the private dairy that held the rights to meet part of Bombay's demand for milk and organized themselves into a cooperative. The cooperative began pasteurizing milk in 1948 and by 1949 the Khaira District Cooperative Milk Producers Union was a group of 20 village cooperatives that had gained the right to bypass intermediaries and directly send milk into Bombay (Amul Dairy, 2017; Kurien, 1997). By offering steady prices and committing to buying farmers' production, milk supply increased in the district and in the 1950s the cooperative diversified into other dairy products; these were sold under the brand Amul (Kurien, 1997). Over time, and with the help of the central government, the program expanded into other regions of the country and today, 1,713 different village cooperatives and over 6 million farmers participate in Amul (Amul Dairy, 2017). The village cooperatives offer multiple services related to their

core, such as the supply of animal feed and veterinary services, and have even ventured as far as to build road networks to connect the villages with the procurement centers (Kurien, 1997). In less than 50 years, through Amul, India went from being a milk-importing country to being the second largest milk producer in the world (Amul Dairy, 2017; FAO, 2018). Amul is much older than both Wok and CasaLuker, and it processes milk, a basic commodity whose market is inherently different from that of cocoa and FFV, however, the biggest difference stems in the fact that it is a large-scale cooperative that has allowed the smallholder producers to conduct most of the processes along the VC and as such capture most of the value generated.

A second successful VC development case is that of the Kenya Tea Development Authority in Kenya. In the 1960s, 90% of Kenya's population was mostly rural and the country had approximately 1.5 million smallholdings, 60% of them were operated for subsistence without significant cash crop production (Lamb and Muller, 1982). Under that panorama, a parastatal institution, the Kenya Tea Development Agency, KTDA, was established in 1964 and by the early 1980's it had organized the planting of approximately 54,000 hectares of tea by 138,000 smallholder farmers, and had become a major processor and the largest exporter of black tea in the world (Lamb and Muller, 1982). In 1980/81 harvest, smallholders produced 146,000 metric tons of tea and exported approximately 85% of the processed product. Widespread smallholder participation in the VC contributed to making tea, Kenya's second most important export commodity and third largest source of foreign exchange earnings. In 2000, KTDA was privatized into the Kenya Tea Development Agency Ltd. and in 2014, the company was owned by 54 tea companies which in turn had 550,000 small tea farmers as individual shareholders (International Finance Corporation, 2014). The agency currently manages 68 factories in Kenya and offers comprehensive services for its tea farmers, such as inputs and agri-extension, transportation, processing, marketing and access to finance; the company manages farm to factory logistics, processing, packaging, distribution, trading and insurance, among other areas. With the Kenya Tea Development Agency, the source of the distinction from Wok and CasaLuker is also in the way the VC has been set up. Originally a parastatal and recently turned into a private company,

all of the value addition is conducted by the KTDA and consequently the smallholder farmers capture all of the value.

While awaiting greater participation and support from the state, CasaLuker and Wok could learn from successful VC for development projects and implement strategies that can further contribute to a deeper transformation of the Colombian rural sector. Alternatives could include developing a brand in Luker's case, and a restaurant in Wok's, under a joint-venture scheme that would allow small-holder producers to benefit from the profits earned and would permit their participation in other value-adding activities in the VC. Wok could also sponsor the development of a producer-owned procurement and processing center that could conduct the initial transformation and distribution of the FFVs, and therefore capture the greater benefits associated with these value-adding activities.

The two cases analyzed explore VCs for distinct products and with very different orientations, consequently, their chain dynamics and size vary for most of the dimensions considered. Regarding the current and potential impact, however, CasaLuker and Wok's cases present important similarities, and both have undoubtedly contributed to Colombia's agricultural and rural development. Despite the fact that both companies have developed and continue to invest in sustainability-oriented business models, it is unlikely that under the current scheme, privately-led VC development will lead to the renewal of the structural transformation process, transformative changes and increased socio-economic development for rural Colombia. Both Wok and CasaLuker could learn lessons from the Kenya Tea Development Authority and the Amul Dairy Cooperative and incorporate some of the successful aspects of these cases into their own VCs.

V. Conclusion

At different times in history, structural transformations have been a key part of the development processes of many countries. Colombia has gone through the different stages of a structural transformation process: agriculture decreased as a share of GDP and labor in agriculture also decreased, population migrated from rural to urban areas, the industry and service sectors have grown and acquired importance within the economy, and the demographic transition is well underway. However, the ultimate results of a successful structural transformation, similar levels of productivity in agriculture and other sectors of the economy and equal opportunities and livelihoods for citizens of rural and urban areas, are nowhere close to being attained.

Three possible explanations as to why the structural transformation has failed to deliver for Colombia what it has for other developed countries were briefly explored. The combination of inadequate government policies, deep-rooted and all-encompassing land inequality and violence have re-enforced themselves and turned into a vicious cycle that has left rural Colombia trapped in poverty, low-productivity agriculture, and in general, worse-off than cities and urban centers.

With Colombia's rural and agricultural context in mind, value chains for development, and in particular the cases of Wok and CasaLuker, were documented, in an effort to understand the chain dynamics, size and current and potential contributions to socioeconomic development in the country's rural areas. Undoubtedly, both companies have made significant contributions by impacting the lives of the smallholder producers who they work with. However, because of the way in which these chains have grown and evolved, it is unlikely that under the current scheme, either of these will lead to the profound structural changes required to bridge the rural-urban gap.

Further research into the reasons that have limited the impact of the structural transformation and the specific effects they have had, as well as broadening the scope of the value chain analysis and identifying

the key enabling factors and investments is required. Only this would guarantee that at this time of great opportunity, the country is able to learn from past mistakes and effectively turn its rural areas and communities, and agriculture, into an engine for social and economic growth and prosperity.

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